

CHAPTER 3

TEST SPECIFICATIONS

There are two primary reasons why test specifications are necessary. First, they help ensure that the test is measuring what it is intended to measure. Second, test specifications help ensure that across the four years of an accountability cycle, the samples of tasks upon which school success is judged are equivalent.

Two sets of specifications have been used to develop KIRIS assessments. A subset of the 57 Academic Expectations that explicate four of Kentucky's six Learner Goals forms one set of specifications. Because the law requires KIRIS to be like the National Assessment of Educational Progress (NAEP)¹, a modification of the NAEP content frameworks forms the second set of specifications. Based on these two frameworks, Kentucky's assessment program targets large concepts and themes; the connecting of ideas; and the application of knowledge, skills, and reasoning to solve problems.

In addition to the aforementioned specifications, *Transformations: Kentucky's Curriculum Framework (1993)* provides benchmarks and further information about content, concepts, and context for questions on the KIRIS tests. To provide an additional level of detail, KDE disseminated draft detailed *Content Guidelines* for social studies and science in 1993, and developed them for all subject areas by fall 1994. These guidelines were first used to build the 1995 assessments. A second version of the *Content Guidelines* was in use for the assessment of 1996. During 1995 and early 1996 an even more elaborate set of specifications of what would be tested resulted in the first version of the *Core Content for Assessment*, which became the guiding instrument for assessment construction beginning in 1997.

LEARNER GOALS

The genesis of Kentucky's six Learner Goals is presented in Chapter 2. The four goals that are the basis of the assessment program are referred to as Goals 1, 2, 5 and 6 from table 2-1. This numbering of the Goals is followed throughout the manual to avoid confusion. For the third accountability cycle, the tests concentrated on these four Learner Goals; Goals 3 and 4 are, by statute, not assessed by KIRIS.

¹Although the law requires the transitional KIRIS to be NAEP-like, it does not define the characteristics of NAEP that should be embodied in KIRIS. Since the law also requires KIRIS to be primarily performance-based, KDE has defined NAEP-like to mean having substantially similar content frameworks.

ACADEMIC EXPECTATIONS

The history of the 57 Academic Expectations is described in Chapter 2. Demonstrating that these expectations are met requires students to show that they can use skills and knowledge in situations they might experience in life (e.g., writing a business letter, producing a report, solving a problem, or choosing and supporting the best course of action). That is, an Academic Expectation is a statement of student ability to demonstrate consistent quality performances on authentic tasks related to a skill area, core concept, or thinking process. Consistent quality performance means a high level of performance on a variety of tasks over time.

At this time, the statewide assessment does not reflect all 57 Academic Expectations. Because the scope of reform was so comprehensive, it would have been unfair to hold all schools in Kentucky immediately responsible for the Academic Expectations that require special programs or facilities, for example, foreign language. Additionally, the Kentucky General Assembly determined that the Academic Expectations in Learner Goals 3 and 4 (self-sufficiency and responsible group membership) should not be assessed at this time. Therefore, the KIRIS assessment does not reflect any Academic Expectations from those Goals. Likewise, the Academic Expectations found in Goals 5 and 6 have not been explicitly targeted for assessment (though many of the performance and portfolio items require the skills identified under these goals).

Tables 3–1a through 3–3b note the distribution of operational open-response items across Academic Expectations. Starting with the 1997 test, additional open-response and multiple-choice pre-test items were integrated within each content area in grades 4, 8, and 11. These pre-test items were not included in the accountability index and were not reported to schools.

Because the open-response questions tend to be broad and often belong to multiple categories (that is, address multiple Academic Expectations), totaling the numbers of items in the categories within a major subject area will usually yield a larger number than the actual count of items. This double counting of questions may lead to disproportionate numbers of items in an area.

TABLE 3–1a
DISTRIBUTION OF OPERATIONAL ITEMS ACROSS ACADEMIC EXPECTATIONS
ELEMENTARY – OPEN-RESPONSE

Grade 4													
Content Area	Academic Expectation	1995			1996			1997			1998		
		Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total
Reading	1.2 Reading Sense	5	24	29	5	24	29	4	24	28	4	24	28
Science	2.1 Scientific Skills	2	3	5	0	2	2	4	24	28	4	23	27
	2.2 Patterns	3	7	10	3	10	13	0	6	6	0	5	5
	2.3 Systems/Interactions	1	8	9	1	10	11	2	7	9	1	7	8
	2.4 Models/Scales	0	3	3	2	0	2	2	4	8	2	7	9
	2.5 Constancy	1	4	5	0	8	8	0	4	4	0	1	1
	2.6 Evolution	1	7	8	1	8	9	0	3	3	1	4	5
		Grade 4						Grade 5					
Mathematics	2.7 Number Concepts	0	4	4	0	4	4	1	3	4	0	3	3
	2.8 Procedures	2	3	5	1	4	5	1	6	7	1	4	5
	2.9 Space/Dimension	0	4	4	1	3	4	1	0	1	0	0	0
	2.10 Measurement	1	2	3	1	3	4	0	7	7	1	7	8
	2.11 Change	1	2	3	0	3	3	1	4	5	2	4	6
	2.12 Structure	0	4	4	1	2	3	0	1	1	0	1	1
	2.13 Data	1	4	5	1	5	6	1	5	6	0	0	0
Social Studies	2.14 Democratic Principles	0	1	1	0	2	2	1	3	4	0	4	4
	2.15 Forms of Government	0	6	6	1	4	5	0	2	2	1	1	2
	2.16 Social Systems	1	3	4	1	5	6	0	1	1	1	1	2
	2.17 Cultural Diversity	1	2	3	0	3	3	1	3	4	0	3	3
	2.18 Economics	0	5	5	1	5	6	1	4	5	0	6	6
	2.19 Geography	1	3	4	3	6	9	1	7	8	1	5	6
	2.20 Historical Perspective	2	2	4	1	3	4	0	6	6	1	5	6
		5 Common, 24 Matrix-sampled items per content area						4 Common, 24 Matrix-sampled items per content area					

As indicated above the assessment includes common items that are the same across all twelve forms. The assessment also includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. Academic expectation counts reflect that an item may be classified into multiple Academic Expectations. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their Academic Expectations are not reflected in this table.

TABLE 3–1b
DISTRIBUTION OF OPERATIONAL ITEMS ACROSS ACADEMIC EXPECTATIONS
ELEMENTARY – OPEN-RESPONSE

		Grade 4						Grade 5					
Content Area	Academic Expectation	1995			1996			1997			1998		
		Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total
Arts & Humanities	2.22 Presentations		5			11			12			2	
	2.23 Analysis of Form		4			10			16			11	
	2.24 Aesthetics		7			9			1			12	
	2.25 Cultural Heritage		5			7			5			3	
	2.26 Cultural Awareness		4			6			1			4	
Practical Living/ Vocational Studies	2.29 Family Life		2			0			3			5	
	2.30 Consumerism		1			2			2			3	
	2.31 Physical Wellness		1			3			4			5	
	2.32 Mental Wellness		0			3			0			0	
	2.33 Health Systems		1			1			1			1	
	2.34 Psychomotor Skills		0			1			1			2	
	2.35 Physical Activities		2			3			1			0	
	2.36 Career Path		2			4			2			2	
	2.37 Transition Skills		2			6			10			6	
	2.38 Post Secondary Search		2			3							
		0 Common items, 24 Matrix-sampled items per content area											

As indicated above the assessment includes no common items that are the same across all twelve forms. The assessment only includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. Academic expectation counts reflect that an item may be classified into multiple Academic Expectations. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their Academic Expectations are not reflected in this table.

TABLE 3–2a
DISTRIBUTION OF OPERATIONAL ITEMS ACROSS ACADEMIC EXPECTATIONS
MIDDLE – OPEN-RESPONSE

		Grade 8						Grade 7					
Content Area	Academic Expectation	1995			1996			1997			1998		
		Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total
Reading	1.2 Reading Sense	6	24	30	6	24	30	4	24	28	4	24	28
Science	2.1 Scientific Skills	1	6	7	3	6	9	4	24	28	4	24	28
	2.2 Patterns	3	8	11	2	6	8	1	8	9	2	3	5
	2.3 Systems/Interactions	5	14	19	3	12	15	1	8	9	0	8	8
	2.4 Models/Scales	3	10	13	2	6	8	2	5	7	1	6	7
	2.5 Constancy	2	8	10	2	5	7	0	2	2	0	2	2
	2.6 Evolution	2	10	12	3	7	10	0	1	1	1	5	6
		Grade 8											
Mathematics	2.7 Number	0	4	4	1	5	6	0	7	7	1	5	6
	2.8 Procedures	1	6	7	2	6	8	1	5	6	1	4	5
	2.9 Space/Dimension	2	3	5	1	3	4	1	5	6	1	3	4
	2.10 Measurement	1	6	7	2	4	6	0	7	7	0	8	8
	2.11 Change	1	6	7	2	4	6	2	3	5	1	4	5
	2.12 Structure	1	2	3	0	2	2	1	1	2	0	1	1
	2.13 Data	1	3	4	2	3	5	1	4	5	1	7	8
Social Studies	2.14 Democratic	2	2	4	1	4	5	1	3	4	0	2	2
	2.15 Political	1	3	4	0	3	3	0	5	5	1	4	5
	2.16 Social	1	3	4	1	1	2	0	2	2	0	2	2
	2.17 Cultural	1	5	6	1	3	4	0	3	3	1	3	4
	2.18 Economic	1	2	3	1	3	4	1	5	6	0	4	4
	2.19 Geography	2	5	7	1	5	6	1	6	7	1	6	7
	2.20 History	0	5	5	1	5	6	1	4	5	1	4	5
		6 Common, 24 Matrix-sampled per content area						4 Common, 24 Matrix-sampled items per content area					

As indicated above the assessment includes common items that are the same across all twelve forms. The assessment also includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. Academic expectation counts reflect that an item may be classified into multiple Academic Expectations. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their Academic Expectations are not reflected in this table.

TABLE 3–2b
DISTRIBUTION OF OPERATIONAL ITEMS ACROSS ACADEMIC EXPECTATIONS
MIDDLE – OPEN-RESPONSE

		Grade 8											
Content Area	Academic Expectation	1995			1996			1997			1998		
		Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total
Arts & Humanities	2.22 Presentations		2			3			7			10	
	2.23 Analysis of Form		7			13			17			14	
	2.24 Aesthetics		7			12			3			1	
	2.25 Cultural Heritage		1			7			3			7	
	2.26 Cultural Awareness		8			10			3			3	
Practical Living/ Vocational Studies	2.29 Family Life		0			2			1			0	
	2.30 Consumerism		1			1			1			2	
	2.31 Physical Wellness		2			2			2			3	
	2.32 Mental Wellness		1			3			4			3	
	2.33 Health Systems		0			2			1			2	
	2.34 Psychomotor Skills		1			1			1			1	
	2.35 Physical Activities		1			1			3			3	
	2.36 Career Path		5			4			7			7	
	2.37 Transition Skills		1			2			5			5	
	2.38 Post Secondary Search		1			5			2			2	
		0 Common items, 24 Matrix-sampled per content area											

As indicated above the assessment includes no common items that are the same across all twelve forms. The assessment only includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. Academic expectation counts reflect that an item may be classified into multiple Academic Expectations. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their Academic Expectations are not reflected in this table.

TABLE 3–3a
DISTRIBUTION OF OPERATIONAL ITEMS ACROSS ACADEMIC EXPECTATIONS
HIGH – OPEN-RESPONSE

		Grade 11											
Content Area	Academic Expectation	1995			1996			1997			1998		
		Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total
Reading	1.2 Reading Sense	6	24	30	6	24	30	4	24	28	4	24	28
Science	2.1 Scientific Skills	3	13	16	2	14	16	4	24	28	4	24	28
	2.2 Patterns	4	20	24	5	19	24	1	3	4	1	5	6
	2.3 Systems/Interactions	6	16	22	5	19	24	2	9	11	0	2	2
	2.4 Models/Scales	1	11	12	3	7	10	1	4	5	1	7	8
	2.5 Constancy	3	12	15	4	13	17	0	1	1	0	2	2
	2.6 Evolution	3	9	12	2	13	15	0	6	6	2	8	10
Mathematics	2.7 Number	0	2	2	1	3	4	1	3	4	0	4	4
	2.8 Procedures	2	4	6	0	5	5	3	4	7	2	4	6
	2.9 Space/Dimension	0	5	5	1	6	7	1	7	8	0	11	11
	2.10 Measurement	2	4	6	1	5	6	1	8	9	1	5	6
	2.11 Change	1	4	5	1	5	6	1	3	4	0	3	3
	2.12 Structure	1	2	3	1	2	3	0	2	2	0	1	1
	2.13 Data	1	5	6	1	7	8	1	6	7	1	5	6
Social Studies	2.14 Democratic	1	4	5	0	5	5	0	0	0	0	1	1
	2.15 Political	1	4	5	3	4	7	1	5	6	1	5	6
	2.16 Social	1	7	8	2	6	8	0	0	0	1	3	4
	2.17 Cultural	2	2	4	1	4	5	0	3	3	0	2	2
	2.18 Economic	1	4	5	1	7	8	0	3	3	1	3	4
	2.19 Geography	2	4	6	1	6	7	1	10	11	2	7	9
	2.20 History	2	10	12	2	9	11	2	6	8	0	6	6
		6 Common, 24 Matrix-sampled per content area						4 Common, 24 Matrix-sampled per content area					

As indicated above the assessment includes common items that are the same across all twelve forms. The assessment also includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. Academic expectation counts reflect that an item may be classified into multiple Academic Expectations. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their Academic Expectations are not reflected in this table.

TABLE 3–3b
DISTRIBUTION OF OPERATIONAL ITEMS ACROSS ACADEMIC EXPECTATIONS
HIGH – OPEN-RESPONSE

		Grade 11											
Content Area	Academic Expectation	1995			1996			1997			1998		
		Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total	Common	Matrix	Total
Arts & Humanities	2.22 Presentations		1			2			6			5	
	2.23 Analysis of Form		6			16			16			19	
	2.24 Aesthetics		8			15			1			1	
	2.25 Cultural Heritage		1			7			1			5	
	2.26 Cultural Awareness		5			9			2			2	
Practical Living/ Vocational Studies	2.29 Family Life		0			2			2			2	
	2.30 Consumerism		2			2			2			1	
	2.31 Physical Wellness		2			3			1			1	
	2.32 Mental Wellness		1			1			3			3	
	2.33 Health Systems		1			2			1			1	
	2.34 Psychomotor Skills		0			1			1			1	
	2.35 Physical Activities		4			4			2			3	
	2.36 Career Path		1			3			6			4	
	2.37 Transition Skills		3			6			2			4	
	2.38 Post Secondary Search		2			4			4			4	
		0 Common, 24 Matrix-sampled per content area											

As indicated above the assessment includes no common items that are the same across all twelve forms. The assessment only includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. Academic expectation counts reflect that an item may be classified into multiple Academic Expectations. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their Academic Expectations are not reflected in this table.

The previous tables (3-1a through 3-3b) show the relationship between content specific Academic Expectations and the items administered on each year's KIRIS tests. The following tables (3-4 through 3-6) show a similar relationship between specific core content and the items administered on each year's KIRIS test. The *Core Content for Assessment* is a document that has a detailed identification of specific content essential for all students to know and to be included on the KIRIS assessment. Each statement in the *Core Content for Assessment* has an identification code that is used to identify, track, and collect data on the KIRIS assessment questions.

A question's core content is identified by three numbers separated by dots (###). The first number indicates the content area's sub domain. For example, reading has four sub domains: 1=Informational, 2=Literary, 3=Persuasive, and 4=Practical. The second number indicates the section. However, section is not a defined classification in reading. For all section designations in Reading a 0 is used as a placeholder and indicates that there are no defined sections in Reading. The third number indicates the specific content. In the reading example for grade 4 under sub domain 1 (Informational) and under section 0 (No defined classification) there are ten specific content areas: 1=Text features and format, 2=Organization of passage, 3=Main idea and supporting details, etc. Thus, the core content code **1.0.3** for a grade 4 Reading question assesses informational reading and the identification of the main idea and details which support the interpretation of the text.

Tables 3-4 to 3-6 show how many items are identified for each content area and grade level tested. Since each sub domain may have multiple sections and specific content areas, an x will represent these in the tables.

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TABLE 3-4
DISTRIBUTION OF OPERATIONAL ITEMS ACROSS CORE CONTENT
ELEMENTARY – OPEN-RESPONSE

Grade 4							
Content Area	Core Content Subdomain	1997			1998		
		Common	Matrix	Total	Common	Matrix	Total
Reading	1.0.x Information	1	7	8	1	7	8
	2.0.x Literature	1	13	14	2	12	14
	3.0.x Persuasion	1	2	3	0	3	3
	4.0.x Practical/Workplace	1	2	3	1	2	3
Science	1.x.x Physical	2	7	9	1	6	7
	2.x.x Life	1	12	13	2	12	14
	3.x.x Earth & Space	1	5	6	1	6	7
	4.x.x Inquiry	4	24	28	4	23	27
Grade 5							
Mathematics	1.x.x Number/Computation	1	8	9	1	6	7
	2.x.x Geometry/Measure.	0	7	7	1	7	8
	3.x.x Probability/Statistics	2	5	7	1	6	7
	4.x.x Algebraic Ideas	1	7	8	2	6	8
Social Studies	1.x.x Government & Civics	1	5	6	1	5	6
	2.x.x Culture & Society	1	4	5	1	4	5
	3.x.x Economics	1	4	5	0	6	6
	4.x.x Geography	1	7	8	1	5	6
	5.x.x History	0	6	6	1	5	6
Arts & Humanities	1.x.x Music		7			6	
	2.x.x Dance		3			4	
	3.x.x Theatre		6			6	
	4.x.x Visual Arts		8			8	
	5.x.x Humanities						
Practical Living/ Vocational Studies	1.x.x Individual & Family		3			5	
	2.x.x Consumer Choices		2			3	
	3.x.x Physical Well-being		4			5	
	4.x.x Mental/Emotional		0			0	
	5.x.x Community Service		1			1	
	6.x.x Psychomotor Skills		1			2	
	7.x.x Lifetime Physical Ac		1			0	
	8.x.x Career Planning		2			2	
	9.x.x Skills & Work Habits		10			6	
	10.x.x Employability Skills						

As indicated above, the assessment includes common items that are the same across all twelve forms, except for arts & humanities and practical living/vocational studies that have no common items. The assessment also includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their core content are not reflected in this table.

TABLE 3-5 DISTRIBUTION OF OPERATIONAL ITEMS ACROSS CORE CONTENT MIDDLE – OPEN-RESPONSE							
Grade 7							
Content Area	Core Content Subdomain	1997			1998		
		Common	Matrix	Total	Common	Matrix	Total
Reading	1.x.x Information	2	8	10	1	6	7
	2.x.x Literature	1	10	11	1	10	11
	3.x.x Persuasion	0	2	2	1	4	5
	4.x.x Practical/Workplace	1	5	6	1	4	5
Science	1.x.x Physical	1	5	6	1	4	5
	2.x.x Life	2	9	11	1	11	12
	3.x.x Earth & Space	1	10	11	2	9	11
	4.x.x Inquiry	4	24	28	4	24	28
Grade 8							
Mathematics	1.x.x Number/Computation	1	12	13	1	9	10
	2.x.x Geometry/Measure.	1	8	9	1	8	9
	3.x.x Probability/Statistics	1	4	5	1	8	9
	4.x.x Algebraic Ideas	2	6	8	1	7	8
Social Studies	1.x.x Government & Civics	1	8	9	1	6	7
	2.x.x Culture & Society	0	5	5	1	5	6
	3.x.x Economics	1	5	6	0	4	4
	4.x.x Geography	1	6	7	1	6	7
	5.x.x History	1	4	5	1	4	5
Arts & Humanities	1.x.x Music		5			6	
	2.x.x Dance		5			7	
	3.x.x Theatre		7			4	
	4.x.x Visual Arts		7			8	
	5.x.x Humanities						
	6.x.x Literature		0			0	
Practical Living/ Vocational Studies	1.x.x Individual & Family		1			0	
	2.x.x Consumer Choices		1			2	
	3.x.x Physical Well-being		2			3	
	4.x.x Mental/Emotional		4			3	
	5.x.x Community Service		1			2	
	6.x.x Psychomotor Skills		1			1	
	7.x.x Lifetime Physical		3			3	
	8.x.x Career Planning		7			7	
	9.x.x Skills & Work Habits		5			5	
	10.x.x Employability Skills		2			2	

As indicated above the assessment includes common items that are the same across all twelve forms, except for arts & humanities and practical living/vocational studies that have no common items. The assessment also includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their core content are not reflected in this table.

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TABLE 3-6
DISTRIBUTION OF ITEMS ACROSS CORE CONTENT
HIGH – OPEN-RESPONSE

Grade 11							
Content Area	Core Content Subdomain	1997			1998		
		Common	Matrix	Total	Common	Matrix	Total
Reading	1.x.x Information	1	6	7	1	6	7
	2.x.x Literature	1	6	7	1	8	9
	3.x.x Persuasion	1	5	6	1	5	6
	4.x.x Practical/Workplace	1	7	8	1	5	6
Science	1.x.x Physical	1	9	10	1	8	9
	2.x.x Life	1	9	10	2	9	11
	3.x.x Earth & Space	2	5	7	1	7	8
	4.x.x Inquiry	4	24	28	4	24	28
Mathematics	1.x.x Number/Computation	1	6	7	0	7	7
	2.x.x Geometry/Measure.	1	13	14	1	13	14
	3.x.x Probability/Statistics	1	6	7	1	5	6
	4.x.x Algebraic Ideas	3	8	11	2	6	8
Social Studies	1.x.x Government & Civics	1	5	6	1	6	7
	2.x.x Culture & Society	1	3	4	1	5	6
	3.x.x Economics	0	4	4	1	3	4
	4.x.x Geography	1	10	11	2	7	9
	5.x.x History	2	8	10	0	6	6
Arts & Humanities	1.x.x Music		5			4	
	2.x.x Dance		6			5	
	3.x.x Theatre		4			5	
	4.x.x Visual Arts		5			6	
	5.x.x Humanities		5			3	
	6.x.x Literature		0			1	
Practical Living/ Vocational Studies	1.x.x Individual & Family		2			2	
	2.x.x Consumer Choices		2			1	
	3.x.x Physical Well-being		1			1	
	4.x.x Mental/Emotional		3			3	
	5.x.x Community Service		1			1	
	6.x.x Psychomotor Skills		1			1	
	7.x.x Lifetime Physical		2			3	
	8.x.x Career Planning		6			4	
	9.x.x Skills & Work Habits		2			4	
	10.x.x Employability Skills		4			4	

As indicated above the assessment includes common items that are the same across all twelve forms, except for arts & humanities and practical living/vocational studies which have no common items. The assessment also includes two matrix items in each of the forms, which give a total of twenty-four matrix items, allowing thorough coverage of the content across all forms used within a school. In addition each form contains a pretest item (total of 12 across all forms), which allows testing of new items to replace old ones cycled out of the test. Pretest items do not affect student or school accountability. Pretest items and their core content are not reflected in this table.

ALTERNATE PORTFOLIOS. Students, who are severely handicapped, such that they are not expected to obtain a high school diploma, are eligible to develop an alternate portfolio rather than participate in other aspects of the KIRIS program. Such students represent about one-half of one percent of the Kentucky school population. Specific criteria for eligibility are detailed in KDE Program Advisory 92-OCAA-104 (February, 1993) and changes in administration are published annually in the *Kentucky Alternate Portfolio Teacher's Guide* and the annual *District Assessment Coordinator Implementation Guidebook*.

The Alternate Portfolio targets 28 Academic Expectations selected by the Alternate Portfolio committee as being most assessable with a portfolio. A complete Alternate Portfolio includes:

- 1) Submit a table of contents completed according to provided guidelines;
- 2) Submit a letter to the reviewer, describing the portfolio and its contents, written or dictated by the student (or a collaboration between the student and a non-disabled peer);
- 3) Submit seven to ten entries representing the breadth of types, contexts, and domain areas with the following caveats:
 - a) One entry must be the student's weekly schedule and a description of its use, indicating the types of activities included, and the opportunities afforded for choice and for interaction with peers without disabilities.
 - b) At grades 8 and 12, one entry must be a résumé of volunteer and paid job experiences, accompanied by employer evaluations.
 - c) Photographs, audio or videotapes, computer disks, and the like must be accompanied by a paragraph describing the entry and the rationale for its inclusion.
 - d) Student program data must be graphed and accompanied by a copy of the instructional program and a qualitative response from the student, non-disabled peer, and/or family member or caregiver.
 - e) One entry may be a sample of the student's present use of their mode(s) of communication and description; and,
- 4) Submit a letter from a family member or caregiver validating the contents of the portfolio.

ENTRY TYPES. Alternate Portfolios include writing, projects, instructional program data, applications, and investigations or discoveries. Individual entries may span two or more types.

CONTEXT. Alternative Portfolio entries should demonstrate integration, functionality, and age-appropriateness. They may use computer, assistive/adaptive, and other technology, and provide opportunities for choice.

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DOMAIN. Appropriate domain areas include vocational, recreation or leisure, and personal management activities.

GROUP ENTRIES. The student may produce entries alone or as part of a group. Group entries must include an explanation and a reflection by the individual student.

PORTFOLIOS. Kentucky writing portfolios are compilations of five to seven best pieces of student work per portfolio. For 1996, all grade 4, 8, and 12 students enrolled in a Kentucky public school were required to complete a Writing Portfolio (with the exception of those producing an Alternate Portfolio, those enrolled less than 100 days in a Kentucky school, and students with limited English proficiency who have been enrolled in an English speaking school less than two years). For 1997 and 1998, the grade 8 writing portfolio was moved to grade 7. Pieces for inclusion in these portfolios were produced throughout the school year as a part of the students' classroom curriculum.

The Writing Portfolio has specific requirements for each grade level that include a variety of types of work and content area requirements. The Writing Portfolio also requires a table of contents, a letter to the reviewer reflecting on the student's work, and a student signature sheet verifying the student's authorship.

In the fall of each year, students were provided with student brochures that contained information about requirements, standards, and development issues. Teachers received teacher handbooks and training to assist them in working with students to develop portfolios. When portfolios were completed, Kentucky classroom teachers scored them. To prepare for scoring, teachers received the holistic scoring guides, benchmark portfolios, and training portfolios. In addition, teachers received training in standards and scoring procedures.

OPEN-RESPONSE QUESTIONS. Open-response questions were administered in Reading, Mathematics, Science, Social Studies, Arts & Humanities, and Practical Living/Vocational Studies. Each open-response question is written so that students should be able to complete their responses in about ten minutes.

Open-response questions were included because they reflect KERA's educational direction. First, they require students to generate answers rather than merely recall or recognize information. Second, they emphasize student communication skills, and thus encourage teachers to use more powerful instructional practices that utilize communication skills and problem solving techniques.

TOTAL TEST ITEMS. The following Tables, 3-7 through 3-9, show the number of unique items used to assess each content area. As can be seen, Reading, Mathematics, Science and Social Studies included 29 items at the elementary level and 30 at the middle and high school levels during 1995 and 1996. The number changed to 28 unique open-response items for 1997 and 1998. The large number of items allows broad coverage of the core curriculum and encourages the teaching of all the content to all students. The number of items for On-Demand Writing and Arts & Humanities and Practical Living/Vocational Studies did not remain the same because some items were repeated on different forms in some years.

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TABLE 3-7 NUMBER OF UNIQUE ITEMS ADMINISTERED ACROSS FORMS IN 1995 THROUGH 1998 ELEMENTARY								
Subject Area	Portfolio ¹				Open-Response ²			
	1995	1996	1997	1998	1995	1996	1997	1998
Reading					29	29	28	28
Science					29	29	28	28
Mathematics					29	29	28	28
Social Studies					29	29	28	28
Writing	•	•	•	•	Student chooses 1 of 2 24 total	Student Chooses 1 of 2 24 total	Student choose 1 of 2 12 total	Student chooses 1 of 2 18 total
Arts & Humanities					12	24	24	24
Practical Living / Vocational Studies					12	24	24	24
Alternate Portfolio	•	•	•	•				
Total Unique Items					164	188	172	178

¹The bullets indicate the portfolios required of students in specific years. See the text for exceptions. The total of unique items does not apply because students submit their own compositions. Six items were required at the elementary level. Less than one half of one percent of Kentucky students produces the alternate portfolio. See the text for specifications.

² See the text for a description of open-response questions. The total of unique items is found by adding the number of common items, (which was 0 for arts & humanities and practical living/vocational studies, 5 each for reading, mathematics, science and social studies for 1995 and 1996 and 4 for subsequent years), to the number of matrix items (which was either one or two), and then multiplying by the number of forms, which was 12. In addition, each form contained one non-assessed pretest item, which was used to build the item pool for future tests. Replacement items were selected from this pool. Pretest items are not included in the count of the number of unique items.

TABLE 3–8 NUMBER OF UNIQUE ITEMS ADMINISTERED ACROSS FORMS IN 1995 THROUGH 1998 MIDDLE								
Subject Area	Portfolio ¹				Open-Response ²			
	1995	1996	1997	1998	1995	1996	1997	1998
Mathematics					30	30	28	28
Reading					30	30	28	28
Science					30	30	28	28
Social Studies					30	30	28	28
Writing	•	•	•	•	Student chooses 1 of 2 24 total	Student Chooses 1 of 2 24 total	Student chooses 1 of 2 12 total	Student chooses 1 of 2 16 total
Arts & Humanities					12	24	24	24
Practical Living / Vocational Studies					12	24	24	24
Alternate Portfolio	•	•	•	•				
Total Unique Items					168	192	172	176

¹The bullets indicate the portfolios required of students in specific years. See the text for exceptions. The total of unique items does not apply because students submit their own compositions. Six items were required at the middle level. Less than one half of one percent of Kentucky students produces the alternate portfolio. See the text for specifications.

²See the text for a description of open-response questions. The total of unique items is found by adding the number of common items, (which was 0 for arts & humanities and practical living/vocational studies, 6 each for reading, mathematics, science, and social studies for 1995 and 1996, and 4 for subsequent years), to the number of matrix items, (which was either one or two), and the multiplying by the number of forms, which was 12. In addition, each form contained one non-assessed pretest item, which was used to build the item pool for future tests. Replacement items were selected from this pool. Pretest items were not included in the count of the number of unique items administered.

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TABLE 3–9 NUMBER OF UNIQUE ITEMS ADMINISTERED ACROSS FORMS IN 1995 THROUGH 1998 HIGH								
Subject Area	Portfolio ¹				Open-Response ²			
	1995	1996	1997	1998	1995	1996	1997	1998
Mathematics					30	30	28	28
Reading					30	30	28	28
Science					30	30	28	28
Social Studies					30	30	28	28
Writing	•	•	•	•	Student Chooses 1 of 2 24 total	Student chooses 1 of 2 24 total	Student chooses 1 of 2 12 total	Student chooses 1 of 2 18 total
Arts & Humanities					12	24	24	24
Practical Living / Vocational Studies					12	24	24	24
Alternate Portfolio	•	•	•	•				
Total Unique Items					168	192	172	178

¹The bullets indicate the portfolios required of students in specific years. See text for exceptions. The total of unique items does not apply because students submit their own compositions. Six items were required at the high school level. Less than one half of one percent of Kentucky students produces the alternate portfolio. See the text for specifications.

²See the text for a description of open-response questions. The total of unique items is found by adding the number of common items, (which was 0 for arts & humanities and practical living/vocational studies, 6 each for reading, math, science and social studies for 1995 and 1996, and 4 for subsequent years), to the number of matrix items, (which was either one or two), and then multiplying by the number of forms, which was 12. In addition, each form contained a non-assessed pretest item, which was used to build the item pool for future tests. Replacement items were selected from this pool. Pretest items were not included in the count of the number of unique items administered.

NUMBER OF TEST QUESTIONS PER STUDENT. The technique of matrix sampling was used to increase the coverage of the assessment and to provide data for linking information across years. Matrix sampling divides a large number of test questions among different forms of the test; each student responds to only one form including all of the common items² and a fraction of the total matrix sampled items used. Table 3–10 presents the number of common and matrix items within each subject taken by each student.

Twelve forms of each test were created in 1995 through 1998. For each subject area, each set of 12 forms covered a total of 24 open-response questions in addition to any common items. For Reading, Mathematics, Science, and Social Studies, the tests contained five common open-response items in grade 4 and six common open-response items in grades 8 and 11 for 1995 and 1996. The 1997 and 1998 tests had four common items at every level. The common items were publicly released following the administration of the tests, while the matrix-sampled items were kept secure. Pretest items were also kept secure. A subset of matrix-sampled items was reused the following year as common items. After being reused as common items, these items became public with the release of that year's common item pool.

Arts & Humanities and Practical Living/Vocational Studies open-response Items were entirely matrix-sampled, with no common items. During Accountability Cycle 3, each student completed two items in those content areas after completion of Reading, Mathematics, Science and Social Studies. In 1997, the grade 4 tests in Arts & Humanities and Practical Living/Vocational Studies were moved to grade 5.

²Common items are repeated in all test forms, and thus are common among all students.

TABLE 3–10 NUMBER OF KIRIS OPERATIONAL OPEN-RESPONSE ITEMS FOR EACH SUBJECT PER TEST FORM BY YEAR				
Years	Common Items (Reading, Mathematics, Science and Social Studies)		Matrix-Sampled Items (All Grades)	
	Grade 4	Grades 8 and 11	Reading, Math, Science, and Social Studies	Arts & Humanities and Practical Living/Vocational Studies
1995, 1996	5	6	2	2
1997, 1998	4	4	2	2

This Chapter includes several changes that took place in the KIRIS test specifications during Accountability Cycle 3. These changes represent the continuous effort in Kentucky to improve the quality of the assessment and the system of which it is a part.